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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/592,156	06/12/2000	Leif Friman	781.358USW1	7434
32294 7590 12/16/2008 SQUIRE, SANDERS & DEMPSEY L.L.P. 8000 TOWERS CRESCENT DRIVE 14TH FLOOR VIENNA, VA 22182-6212				
EXAMINER				
1.Y. NGHI H				
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2617				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/592,156

Applicant(s)

FRIMAN ET AL.

Examiner

NGHI H. LY

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 September 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-S92)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1, 11, 12, 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Wallentin et al (US 6,188,911) and further in view of Endo (US 5,943,610) and Lee et al (US 5,940,762).

Regarding claims 1, 11, 12, 13 and 14, Langlet teaches a method comprise: arranging, in a mobile system between a base station controller and base stations (fig.1, see communication between "BSC 16" and "BTS 20" or "RBS 22", and see column 5, lines 62-65 and column 13, lines 7-12), telecommunication channels which are available for a plurality of base stations but not permanently allocated to any base

station (see communication between "BSC 16" and "BTS 20" or "RBS 22", and see column 5, lines 62-65, column 13, lines 7-12, see "allocates" or "reallocate", and Langlet's "reallocate" reads on Applicant's "not permanently"),

Langlet does not specifically disclose allocating in call set-up at least one of the telecommunication channels between the base station controller and the base stations to the base station handling the call.

Wallentin teaches allocating in call set-up at least one of the telecommunication channels between the base station controller and the base stations to the base station handling the call (see column 4, lines 55-65).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Wallentin into the system of Langlet in order to provide efficient message transmission in a mobile communication system (see Wallentin, title).

The combination of Langlet and Wallentin does not specifically disclose controlling the base station controller to transmit information to the base station on the telecommunication channel between the base station controller and the base station allocated thereto.

Endo teaches controlling the base station controller to transmit information to the base station on the telecommunication channel between the base station controller and the base station allocated thereto (see column 4, lines 56-60. In addition, see DICTOINARY.COM which states that "data" is "information").

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Endo into the system of Langlet and Wallentin in order to provide transmission control with dynamic step values (see Endo, title).

The combination of Langlet, Wallentin and Endo does not specifically disclose controlling the base station controller to transmit information to the base station to indicate for the base station the telecommunication channel between the base station controller and the base station allocated thereto.

Lee teaches the base station controller to transmit information to the base station to indicate for the base station the telecommunication channel between the base station controller and the base station allocated thereto (see column 7, lines 45-50).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Lee into the system of Langlet, Wallentin and Endo in order to improve method and apparatus for conducting telephone calls (see Lee, column 1, lines 5-10).

4. Claims 2, 3, 15, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Wallentin et al (US 6,188,911) and further in view of Endo (US 5,943,610) and Lee et al (US 5,940,762) and further in view of Choi et al (US 6,724,740).

Regarding claims 2, 15, 18 and 19, the combination of Langlet, Wallentin, Endo and Lee teaches claim 1. The combination of Langlet, Wallentin, Endo and Lee does

not specifically disclose the telecommunication channels are circuit-switched, the telecommunication channels are classified on the basis of their characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and in call set-up, a primary telecommunication channel, if available, is allocated to the base station, otherwise a free secondary telecommunication channel is allocated thereto.

Choi teaches the telecommunication channels are circuit-switched, the telecommunication channels are classified on the basis of their characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and in call set-up, a primary telecommunication channel, if available, is allocated to the base station, otherwise a free secondary telecommunication channel is allocated thereto (see Abstract, column 29, lines 4-24, see "call setup", "fundamental channel" and "supplemental channel").

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Choi into the system of Langlet, Wallentin, Endo and Lee in order to provide a voice and data transmission/reception device in a communication system and a control information message by using channel that are not occupied (see Choi, column 2, lines 22-27).

Regarding claim 3, Langlet further teaches the free telecommunication channels are classified into categories on the basis of their data transmission capacity (see column 5, line 62 to column 6, line 11) or quality such that the primary telecommunication channels have larger data transmission capacity or they are of better

quality than the secondary telecommunication channels (see column 5, line 62 to column 6, line 11).

5. Claims 4, 7, 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Kanai (US 6,195,566) and further in view of Wallentin et al (US 6,188,911) and Kallin et al (US 5,701,592).

Regarding claims 4 and 9, Langlet teaches a mobile system (see fig.1 and fig.6), comprising: a base station controller (see fig.4 and fig.6, see "BSC 16"), a plurality of optional telecommunication channels (see fig.1), which are not permanently allocated to any base station (see communication between "BSC 16" and "BTS 20" or "RBS 22", and see column 5, lines 62-65, column 13, lines 7-12, see "allocates" or "reallocate", and Langlet's "reallocate" reads on Applicant's "not permanently"), available between said base station controller and base stations (see communication between "BSC 16" and "BTS 20" or "RBS 22", and see column 5, lines 62-65, column 13, lines 7-12, see "allocates" or "reallocate", and Langlet's "reallocate" reads on Applicant's "not permanently"), at least a first and a second base station (see fig.1), which comprise transceiver units configured to establish a telecommunication connection by radio signals to the subscriber terminals located in the base station coverage area (see fig 1, wireless connection between BTS 20 and handsets 12),

Langlet does not specifically disclose a switching unit configured to switch the base station transceiver units onto a particular channel of said plurality of optional telecommunication channels between the base station controller and the base stations.

Kanai teaches a switching unit configured to switch the base station transceiver units onto a particular channel of said plurality of optional telecommunication channels between the base station controller and the base stations (see fig.1, BSC 102, Controller 130 and Switching devices 105).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Kanai into the system of Langlet so that traffic can be assigned to the transceiver, based on the provider with the highest volume or according to a prearranged priority scale (see Kanai, Abstract).

The combination of Langlet and Kanai does not specifically disclose the base station controller comprises a controller which in call set-up allocates at least one of said telecommunication channels between said base station controller and said base stations to the first or the second base station for the call.

Wallentin teaches the base station controller comprises a controller which in call set-up allocates at least one of said telecommunication channels between said base station controller and said base stations to the first or the second base station for the call (see column 4, lines 55-65), and which transmit a predetermined message indicating the allocated telecommunication channel to the base station to whom the channel is allocated (see column 4, lines 55-65).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Wallentin into the system of Langlet and Kanai in order to provide efficient message transmission in a mobile communication system (see Wallentin, title).

The combination of Langlet, Kanai and Wallentin does not specifically disclose the switching unit of the first, and correspondingly, of the second base station are responsive to said message for switching the base station transceiver units to the telecommunication channel assigned by said message.

Kallin teaches the switching unit of the first, and correspondingly, of the second base station are responsive to said message for switching the base station transceiver units to the telecommunication channel assigned by said message (see column 1, lines 41-50).

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Kallin into the system of Langlet, Kanai and Wallentin in order to provide to increase the number and/or quality of voice or traffic channels (see Kallin, title).

Regarding claim 7, Langlet further teaches the message indicating the allocated telecommunication channel also indicates a radio channel to be used in the call to the transceiver unit of the base station (see column 3, lines 22-31).

Regarding claim 10, Langlet further teaches the particular transceiver unit comprises an applying unit configured to apply a radio channel assigned by the message for the duration of the call to be established (see column 8, lines 31-38).

6. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Kanai (US 6,195,566) and further in view of

Wallentin et al (US 6,188,911), Kallin et al (US 5,701,592) and Choi et al (US 6,724,740).

Regarding claim 5, the combination of Langlet, Kanai, Wallentin and Kallin teaches a method as claimed in claim 4. The combination of Langlet, Kanai, Wallentin and Kallin does not specifically disclose the telecommunication channels are classified on the basis of their characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and a primary telecommunication channel, if available, is allocated to the base station, otherwise a free secondary telecommunication channel is allocated thereto.

Choi teaches the telecommunication channels are classified on the basis of their characteristics into at least two categories, i.e. primary telecommunication channels and secondary telecommunication channels, and a primary telecommunication channel, if available, is allocated to the base station, otherwise a free secondary telecommunication channel is allocated thereto (see Abstract, column 29, lines 4-24, see "call setup", "fundamental channel" and "supplemental channel").

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Choi into the system of Langlet, Kanai, Wallentin and Kallin in order to provide a voice and data transmission/reception device in a communication system and a control information message by using channel that are not occupied.

Regarding claim 6, Langlet further teaches the primary telecommunication channels have larger data transmission capacity or they are of better quality than the secondary telecommunication channels (see column 5, line 62 to column 6, line 11).

7. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Kanai (US 6,195,566) and further in view of Wallentin et al (US 6,188,911), Kallin et al (US 5,701,592) and Lu et al (US 5,887,256).

Regarding claim 8, the combination of Langlet, Kanai, Wallentin and Kallin teaches claim 4. The combination of Langlet, Kanai, Wallentin and Kallin does not specifically disclose the mobile system is the a global system or mobile communication (GSM) system and said message consists of a CHANNEL ACTIVATION message in accordance with the GSM specifications part 08.58, to which is added information on the telecommunication channel allocated to the base station.

Lu teaches the mobile system is the GSM system (column 7, lines 18- 30, see "GSM") and said message consists of a CHANNEL ACTIVATION message in accordance with the GSM specifications part 08.58, to which is added information on the telecommunication channel allocated to the base station (column 7, lines 18- 30, see "GSM 08.58").

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Lu into the system of Langlet, Kanai, Wallentin and Kallin in order to provide a method for facilitating cellular

communication for and among a plurality of native cellular handsets in a hybrid cellular communication system (see Lu, Abstract).

8. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Langlet et al (US 5,930,248) in view of Kanai (US 6,195,566) and further in view of Wallentin et al (US 6,188,911) and Kallin et al and further in view of Choi et al (US 6,724,740).

Regarding claims 16 and 17, the combination of Langlet, Kanai, Wallentin and Kallin teaches claims 4 and 9. The combination of Langlet, Kanai, Wallentin and Kallin does not specifically disclose the telecommunication channels are circuit-switched, said telecommunication channels are classified on the basis of their characteristics into at least two categories including primary telecommunication channels and secondary telecommunication channels, and in call set-up, said connecting is carried via a primary telecommunication channel, if available, otherwise via a free secondary telecommunication channel.

Choi teaches the telecommunication channels are circuit-switched, said telecommunication channels are classified on the basis of their characteristics into at least two categories including primary telecommunication channels and secondary telecommunication channels, and in call set-up, said connecting is carried via a primary telecommunication channel, if available, otherwise via a free secondary telecommunication channel (see Abstract, column 29, lines 4-24, see "call setup", "fundamental channel" and "supplemental channel").

Therefore, it would have been obvious to one of ordinary skills in the art at the time of the invention was made to provide the above teaching of Choi into the system of Langlet, Kanai, Wallentin and Kallin in order to provide a voice and data transmission/reception device in a communication system and a control information message by using channel that are not occupied (see Choi, column 2, lines 22-27).

Regarding claim 17, Langlet further teaches the free telecommunication channels are classified into categories on the basis of their data transmission capacity or quality such that the primary telecommunication channels have larger data transmission capacity or they are of better quality than the secondary telecommunication channels (see column 5, line 62 to column 6, line 11).

Response to Arguments

9. Applicant's arguments with respect to claims 1-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (571)272-7911. The examiner can normally be reached on 9:30am-8:00pm Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dwayne Bost can be reached on (571) 272-7023. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nghi H. Ly

/Nghi H. Ly/
Primary Examiner, Art Unit 2617